REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 1-3, 6-12, 14-20, and 22-28 are pending and under consideration.

REJECTION UNDER 35 U.S.C. § 102:

In the Office Action, at page 2, claims 1-3, 6-12, 14-20, and 22-28 were rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 6,298,024 to Nomura ("Nomura"). This rejection is traversed and reconsideration is requested.

According to the Office Action, column 15, lines 10-40, of Nomura describe detecting the "amplitude of the envelope signal and sampling the envelope signal between a maximum value and a minimum value into n sample signals at a zero cross interval, and obtaining an average value of the obtained n peak-to-peak values as the detected amplitude," as recited in independent claims 1 and 12. However, in column 15, lines 1-10, Nomura explains that it generally provides obtaining the difference between the upper and lower envelopes or the mean value of the readout signal RF. Subsequently, the following equations are shown illustrating obtaining the difference between the upper and lower envelopes and an average thereof on the information track 3:

$RFAMP(dif)_1 = RFp1 - RFb_1$ (8), and

$RFAMP\ (avg)_1 = (RFp_1, + RFb_1)/2$ (9)

and between the information tracks 3,

$RFAMP\ (dif)_2 = RFP_2 - RFb_2$ (10), and

$RFAMP\ (avg)_2 = (RFp_2 + RFb_2)/2$ (11).

The p-p value of the amplitude of the amplitude indicating signal is given by equations (12) and (13) below. The p-p value of the amplitude (change) of the amplitude indicating signal is given by:

$$RFAMP(dif)_{p\text{-}p} = RFAMP(dif)_1 - RFAMP(dif)_2 \quad (12)$$

$$= (RFp_1 - RFb_1) - (RFp_2 - RFb_2), \text{ or}$$

$$RFAMP(avg)_{p\text{-}p} = RFAMP(avg)_1 - RFAMP(avg)_2 \quad (13)$$

$=(RFp_1 + RFb_1 - RFp_2 - RFb_2)/2.$

However, none of the equations (8)-(13), for instance, teach or suggest **sampling** the envelope signal. Emphasis added. Rather, it appears that the peak values on the information track 3 and between the information tracks 3 in Nomura is obtained only at one point in time. By definition, the term "sampling" as recited in independent claims 1 and 12 is defined as "samples taken at periodic intervals to measure and record some parameter." See Microsoft Computer Dictionary, Fourth Edition, page 393, a copy of which is enclosed with the present Amendment. Thus, by definition as known by persons skilled in the pertinent art, the "predetermined number of sample signals," recited in independent claims 1 and 12, is obtained by obtaining samples at periodic intervals of "the envelope signal between a maximum value and a minimum value." Thus, Applicants respectfully assert that Nomura fails to anticipate all the claimed features of independent claims 1 and 12. It is respectfully requested that independent claims 1 and 12 and related dependent claims be allowed.

Referring to independent claims 20 and 25, Applicants would like to indicate that the present Office Action has failed to address the arguments presented by the Applicant on the Response filed on July 9, 2003 regarding independent claims 20 and 25 in the comments provided on pages 2 and 3 of the Office Action.

Independent claim 20 recites "a controller which detects **an amplitude** of the envelope signal **only when a focusing operation of the disc is being performed prior to a tracking control operation of the disc being performed**, to discriminate the type of the loaded disc, wherein the controller controls the reproduction of the disc in accordance with the discriminated disc type." In contrast, Nomura identifies the type of the optical disc 1 on the basis of an amplitude indicating signal RFAMP, and outputs an identification result signal DTYPE. See column 5, lines 49-56. The subtracter 32 calculates the difference Vamp between the maximum V-peak and minimum V-bottom of the amplitude indicating signal RFAMP by subtracting an output of the lower envelope detector 31 from an output of the upper envelope detector 30. See column 6, lines 57-62. Accordingly, the amplitude indicating signal RFAMP is obtained at all times rather than "only when a focusing operation of the disc being performed prior to a tracking control operation of the disc is being performed," as recited in independent claim 20. Accordingly, it is respectfully asserted that Nomura fails to teach or suggest all the claimed features of independent claim 20. It is requested that independent claim 20 and related dependent claims be allowed.

Independent claim 25 recited "detecting an amplitude of the envelope signal only when a focusing operation of the disc is being performed prior to a tracking control operation of the disc being performed, to discriminate the type of the loaded disc, and controlling the reproduction of the disc in accordance with the discriminated disc type." The arguments presented above supporting the patentability of independent claim 12 are incorporated herein to support the patentability of independent claim 25 and related dependent claims. Accordingly, it is respectfully asserted that Nomura fails to teach or suggest all the claimed features of independent claim 25. It is requested that independent claim 25 and related dependent claims be allowed.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance, which action is earnestly solicited.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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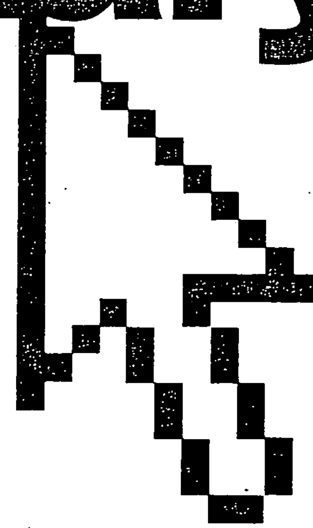

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S-100 bus *n.* A 100-pin bus specification used in the design of computers built around the Intel 8080 and Zilog Z-80 microprocessors. System designs using the Motorola 6800, 68000, and Intel iAPx86 family of microprocessors have also been built around the S-100 bus. S-100 computers were extremely popular with early computer enthusiasts. They had an open architecture, which permitted the configuration of systems with a wide range of add-on expansion boards.

SAA *n.* Acronym for Systems Application Architecture. An IBM-developed standard for the appearance and operation of application software that will give programs written for all IBM computers—mainframe computers, minicomputers, and personal computers—a similar look and feel. SAA defines how an application interfaces with both the user and the supporting operating system. True SAA-compliant applications are compatible at the source level (before being compiled) with any SAA-compliant operating system—provided the system is capable of furnishing all the services required by the application.

Sad Mac *n.* An error indication that occurs on Macintosh computers when the system fails the initial diagnostic test. A Sad Mac is a picture of a Macintosh with a frowning face and X's for eyes, with an error code beneath the picture.

safe mode *n.* In some versions of Windows, such as Windows 95, a boot mode that bypasses startup files and loads only the most basic drivers. Safe mode allows the user to correct some problem with the system—for example, if the system fails to boot or the Registry has become corrupted. *See also* boot[1].

sampling *vb.* **1.** In statistics, gathering data from a representative subset of a larger group (called a population)—for example, determining a country's presumed voting pattern by polling a demographic cross section of voters. Other uses of this type of sampling might include checking the accuracy and efficiency of computerized transactions by reviewing every hundredth transaction or predicting traffic volumes by measuring traffic flow in a few strategic streets. There are many statistical procedures for estimating how accurately a given sample reflects the behavior of a group as a whole. **2.** The conversion of analog signals to a digital format; samples are taken at periodic intervals to measure and record some parameter, such as a signal from a temperature sensor or a microphone. Analog-to-digital converters are used in computers to sample analog signals as voltages and convert them to the binary form a computer can process. The two primary characteristics of this type of sampling are the sampling rate (usually expressed in samples per second) and the sampling precision (expressed in bits; 8-bit samples, for instance, can measure an input voltage accurate to 1/256 of the measured range).

sampling rate *n.* The frequency with which samples of a physical variable, such as sound, are taken. The higher the sampling rate (that is, the more samples taken per unit of time), the more closely the digitized result resembles the original. *See also* sampling (definition 2).

sampling synthesizer *n.* A device designed to reproduce sounds, at differing frequencies, based on a digitized sound stored in read-only memory. For example, a recorded piano note, digitized and stored in memory, is used by the synthesizer to create other piano-like notes.

SAN *n. See* System Area Network.

sandbox *n.* **1.** Java Virtual Machine security area for downloaded (remote or untrusted) applets, an area in which such applets are confined and prevented from accessing system resources. Confinement to the sandbox prevents downloaded applets from carrying out potentially dangerous operations, maliciously or otherwise. They have to "play" inside the sandbox, and any attempt to "escape" is thwarted by the Java Security Manager. **2.** Slang for the research and development department at many software and computer companies. *See also* applet, Java Virtual Machine.